

**AMENDMENTS TO THE CLAIMS**

**This listing of claims will replace all prior versions and listings of claims in the application:**

**LISTING OF CLAIMS:**

1. (*Currently Amended*) A telecommunication ~~Telecommunication~~-carrier processor subsystem (~~CPS~~) having an input (~~IN~~) and a plurality of outputs and receiving, (~~OUT<sub>i</sub>, OUT<sub>j</sub>, OUT<sub>k</sub>~~) and ~~being adapted to receive~~, at said input, telecommunication cells (1, 2) each comprising a payload field and a H-bit header field, said subsystem comprising: including

telecommunication interface means (~~TID~~) having an interface input corresponding to said input (~~IN~~) and a plurality of outlets (~~OTL<sub>i</sub>, OTL<sub>j</sub>, OTL<sub>k</sub>~~) each coupled to distinct ones of said outputs, said telecommunication interface means comprising: including

header detection means (~~HDC~~) connected to said input ~~and routing means (RTC)~~ ~~connected to said input, to said plurality of outlets and controlled by said header detection means~~, said header detection means deriving ~~being adapted to derive~~ a R-bit connection identifier from at least a portion of the set of H bits contained in said header field, R and H being integer numbers with R smaller than H,

routing means connected to said input and to said plurality of outlets and controlled by said header detection means, wherein ~~characterized in that~~ said routing means transmits (~~RTC~~) ~~are adapted to transmit~~ a cell (1, 2) from said input (~~IN~~) to at least one predetermined outlet of said plurality of outlets (~~OTL<sub>i</sub>, OTL<sub>j</sub>, OTL<sub>k</sub>~~) according to said R-bit connection identifier received from said header detection means (~~HDC~~), and replaces to replace,

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into the header field of said cell, said set of H bits by a second set of H bits comprising including  
the set of R bits constituting said connection identifier, and

header combination means, coupled to said header detection means and to said  
routing means, for combining a set of D bits of at least one of information data and command  
data with said set of R bits received from said header detection means into said second set of  
H bits, D being an integer number smaller or equal to a difference between H and R.

2. *(Cancelled).*

3. *(Currently Amended)* The telecommunications ~~Telecommunication~~-carrier processor  
subsystem according to claim 1, wherein ~~characterized in that~~ said header detection means  
comprises (HDC) includes a routing table having as input said portion of the set of H bits  
contained in said header field and as output said set of R bits constituting said connection  
identifier.

4. *(Currently Amended)* The telecommunications ~~Telecommunication~~-carrier processor  
subsystem according to claim 1, wherein ~~characterized in that~~ said telecommunication cells are  
Asynchronous Transfer Mode [ATM]-cells.

5. (*Currently Amended*) The telecommunications ~~Telecommunication~~-carrier processor subsystem according to claim 1[[2]], wherein ~~characterized in that~~ said carrier processor subsystem (~~CPS~~) further comprises ~~includes~~ a plurality of carrier processor means (~~CPI~~) each having an inlet connected to an outlet (~~OTLi~~) of said telecommunication interface means (~~TID~~) and an output corresponding to an output (~~OUTi~~) of said carrier processor subsystem, each carrier processor means being configured to transmit ~~adapted to transmitted or not~~ to said output a cell received at said inlet or to block transmission of said cell to said output according to at least a portion of the information data included in said set of D bits.

6. (*Currently Amended*) The telecommunications ~~Telecommunication~~-carrier processor subsystem according to claim 5, wherein ~~characterized in that~~ each carrier processor means comprises (~~CPI~~) of said plurality ~~includes~~ parameter detection means (~~PDC~~) connected to said inlet (~~OTLi~~) and carrier mapping means (~~CMC~~) connected to said inlet, to said output (~~OUTi~~) and to an output (~~OPD~~) of said parameter detection means, said parameter detection means extracting ~~being adapted to extract~~ said second set of H bits contained in the header field of a cell received at said inlet, to translate said second set of H bits into a set of M bits and transmitting to ~~transmit~~ said set of M bits to said carrier mapping means.

7. (*Currently Amended*) The telecommunications ~~Telecommunication~~-carrier processor subsystem according to claim 6, wherein ~~characterized in that~~ each of said carrier mapping means replaces, ~~(CMC) is adapted to replace~~ in the header field of said cell, said second set of H bits by said set of M bits, prior to transmit said cell to said output ~~(OUTi)~~.

8. (*New*) The telecommunications carrier processor subsystem according to claim 1, wherein the information data included in said set of D bits comprises at least one of user data, a command or a control transmission.

9. (*New*) The telecommunications carrier processor subsystem according to claim 1, wherein the information data included in said set of D bits comprises a flag that commands at least one of the plurality of the carrier processor means to transmit said cell and commands at least one other of the plurality of carrier processor means to block transmission of said cell.

10. (*New*) The telecommunications carrier processor subsystem according to claim 1, wherein the information data included in said set of D bits comprises a duplication flag that commands at least two of the plurality of the carrier processor means.

11. (*New*) The telecommunications carrier processor subsystem according to claim 5, wherein at least one of the carrier processor means converts the R-bit connection identifier and said set of D bits into the original H-bit header field of the telecommunication cells.

12. (New) A telecommunication carrier processor subsystem having an input and a plurality of outputs and receiving, at said input, telecommunication cells each comprising a payload field and a H-bit header field, said subsystem comprising:

a telecommunication interface comprising an interface input corresponding to said input and a plurality of outlets each coupled to distinct ones of said outputs, said telecommunication interface comprising:

a header detector connected to said input, said header detector deriving a R-bit connection identifier from at least a portion of the set of H bits contained in said header field, R and H being integer numbers with R smaller than H,

a router connected to said input and to said plurality of outlets and controlled by said header detector, wherein said router transmits a cell from said input to at least one predetermined outlet of said plurality of outlets according to said R-bit connection identifier received from said header detector, and replaces, into the header field of said cell, said set of H bits by a second set of H bits comprising the set of R bits constituting said connection identifier, and

a header combiner, coupled to said header detector and to said router, to combine a set of D bits of at least one of information data and command data with said set of R bits received from said header detector into said second set of H bits, D being an integer number smaller or equal to a difference between H and R.

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13. *(New)* The telecommunications carrier processor subsystem according to claim 12, wherein said header detector comprises a routing table having as input said portion of the set of H bits contained in said header field and as output said set of R bits constituting said connection identifier.

14. *(New)* The telecommunications carrier processor subsystem according to claim 12, wherein said telecommunication cells are Asynchronous Transfer Mode cells.

15. *(New)* The telecommunications carrier processor subsystem according to claim 12, wherein said carrier processor subsystem further comprises a plurality of carrier processors each having an inlet connected to an outlet of said telecommunication interface and an output corresponding to an output of said carrier processor subsystem, each carrier processor being configured to transmit to said output a cell received at said inlet or to block transmission of said cell to said output according to at least a portion of the information data included in said set of D bits.

16. *(New)* The telecommunications carrier processor subsystem according to claim 15, wherein each carrier processor comprises a parameter detector connected to said inlet and a carrier mapper connected to said inlet, to said output and to an output of said parameter detector, said parameter detector extracting said second set of H bits contained in the header field of a cell received at said inlet, translating said second set of H bits into a set of M bits and transmitting said set of M bits to said carrier mapper.

17. *(Currently Amended)* The telecommunications carrier processor subsystem according to claim 16, wherein each of said carrier mappers replaces, in the header field of said cell, said second set of H bits by said set of M bits, prior to transmitting said cell to said output.

18. *(New)* The telecommunications carrier processor subsystem according to claim 12, wherein the information data included in said set of D bits comprises at least one of user data, a command or a control transmission.

19. *(New)* The telecommunications carrier processor subsystem according to claim 12, wherein the information data included in said set of D bits comprises a flag that commands at least one of the plurality of the carrier processors to transmit said cell and commands at least one other of the plurality of carrier processors to block transmission of said cell.

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20. *(New)* The telecommunications carrier processor subsystem according to claim 12, wherein the information data included in said set of D bits comprises a duplication flag that commands at least two of the plurality of the carrier processors.

21. *(New)* The telecommunications carrier processor subsystem according to claim 15, wherein at least one of the carrier processors converts the R-bit connection identifier and said set of D bits into the original H-bit header field of the telecommunication cells.